Climatological Data for October, 1909.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The weather was unusually mild and pleasant throughout the Great Basin during October, and very beneficial to all interests. The temperature averaged somewhat above normal, and the precipitation below normal. Sunshine was abundant, there being an unusually large proportion of clear days. The winds were light, which together with the high temperatures, combined to render a generally hazy atmosphere.

TEMPERATURE.

The monthly mean temperature for the district, as a whole, averaged 50.1°, which was 0.9° above the normal; and ranged from 74.8° at Bagdad, Cal., to 32.6° at Truckee, Cal.

The monthly mean temperatures were above normal in all portions of the district, except in Oregon, the central portion of California, and locally in Nevada and Utah. The divergence of the mean temperatures from the normal were not at all uniform, ranging from 5.6° above normal at Ely, Nev., to 12.6° below at Truckee, Cal.

As a rule the highest mean temperatures occurred in the Salt Lake Valley, Utah, southern Utah, and western Nevada, where they were above 50°; the lowest means in northeastern Nevada and central California, where they were below 50°.

The month began warm in all localities and continued so until the 7th when colder weather set in, but which persisted only a few days. Some stations in Utah, Nevada, and Oregon reported the lowest temperatures for the month during this cold spell. There were also some very low temperatures reported in Wyoming and Idaho.

The last two decades of the month were quite warm, with the exception of the last few days in the month when temperatures dropped everywhere, and the lowest for the month were generally reported.

Maximum temperatures of over 70° occurred at most stations, and about one-half the stations reported maximum temperatures of over 80°. The highest recorded was 93° at Bagdad, Cal., on the 17th, and the next highest was 91° at Garrison, Utah, on the 5th. The lowest maximum for the district was 50°, which occurred at Truckee, Cal., on the 16th.

Minimum temperatures below 32° occurred at all stations except Bagdad, Cal., where 48° was the lowest for the month. About one-half of the stations reported minimum temperatures of 20° or lower, while the lowest for the district was 6° at Scipio, Utah, on the 31st.

The greatest daily range in temperature was 69° at Carlin, Nev., and the greatest monthly range was 77° at the same place.

Killing frost occurred at practically every point in the district.

PRECIPITATION.

For the district, as a whole, the precipitation averaged 0.55 inch, which was 0.35 inch below the normal. Moisture was deficient at all stations except in north-central and western Nevada and locally in Oregon. This month was one of the driest on record, and in Utah four stations reported no precipitation and four only a trace, while in Nevada three stations reported no precipitation.

The greatest monthly amount was 2.17 inches at Silver Lake, Utah, and the greatest amount in twenty-four hours was 0.90 inch at Corinne and Silver Lake, Utah, and at Quinn River Ranch, Nev.

The precipitation was very unevenly distributed, varying from none to 2.17 inches on the western slope of the Wasatch Mountains in Utah. In Nevada the greatest amounts fell in the north-central portion, although there were local exceptions.

In most States precipitation occurred from the 1st to the 6th, but rain also fell at many stations in Nevada, Utah, and Wyoming on the 7th. Light showers again fell in Oregon and California from the 18th to the 21st. It was then fair until the 28th when precipitation occurred in all States except Utah and Wyoming, but occurred in these States on the succeeding day and continued until the end of the month. It was during these last few days that the heaviest precipitation of the month generally occurred. This rain was especially beneficial in Oregon.

Snow fell at most stations in the district during the month. The heaviest was 17 inches at Silver Lake, Utah, but at all other stations the amounts reported were 5 inches or less.

Thunderstorms were reported from numerous points in Utah from the 3d to the 5th, and hail occurred at a number of points near the beginning and again near the end of the month.

HELPFUL SUGGESTIONS FOR THE WEATHER BUREAU TO AID THE AGRICULTURIST.

By Prof. M. E. JONES, Salt Lake City, Utah.

The agriculturist desires data that will enable him to raise the best crops, at the least expense, and in the West this means a better knowledge of evaporation, the duty of water, the sun temperature, and humidity.

The botanist and student of plant life want to get at all the facts that bear on the various changes in plant life due to environment, at least so far as climate is concerned.

The Bureau furnishes us with invaluable data on rainfall, wind movement, and temperature, and some information on humidity; all under certain restricted conditions that are well enough for the purposes of the Bureau, but not enough for our purposes.

The greatest need to-day is for humidity records. There are only two such records taken in the entire State of Utah, and I believe the same number in Nevada, which, so far as the Great Basin is concerned, is all we have. These records are taken at a distance so far above the ground as to amount to little for our purpose.

Our other needs may be placed under two heads, instruments and records.

In the matter of instruments the Bureau is well equipped, but the general public must have handy and inexpensive ones that are accurate. The aneroid barometer fills a long-felt want, and has stimulated interest in meteorological matters more than anything else. The hair hygrometer was hailed as a great step in advance, but the Bureau has discarded it as inaccurate. In fact it refuses to recognize any humidity apparatus except the whirled psychrometer, which is too cumbersome and expensive for general use. The cup hygrometer with wet- and dry-bulbs is quite handy, but we have no data to determine how reliable it is, or how it compares with the standard apparatus. The general public does not know of any suitable and compact thermometer that is accurate and usable under all conditions and sufficiently sensitive. There is no handy anemometer that can be had at a reasonable cost. No farmer wants to invest a hundred dollars, or even fifty dollars, in such an apparatus, but he must, if he wants to study plant life at present.

In the matter of records, as I have said, the crying need is for humidity data obtained at places where the crops grow, and under the identical conditions, not 50 feet above ground as at present, and in some cases from 500 to 100 miles away, and generally outside of their particular life-zone. No one is criticising the value of the present records or the method of getting them, but we want more of the same kind and taken

for special purposes. Temperatures, at present, are taken at a latticed shed in the shade. Plants do not grow there; they grow in the sun. Shade temperatures are largely a question of humidity, the disparity being very great in the arid West. We want to know the temperature at the growing parts of plants, and the actual conditions under which the plants grow, which are the sun temperatures there. We want to know the soil temperatures under all conditions of sun temperature and humidities. We want to know the humidity at the growing parts of the plants, and the effects of variable humidity on their growth and character. We want to know the humidity of the soil best suited for special plants. Now, we drown them out, or starve them by our methods of irrigation, because we do not have the data to get at the condition of the soil scientifically, and much water is wasted and crops are often short in quantity and weight for this reason. We know that a crop needs water badly when it begins to wilt to the eye, but that is long after it should have been irrigated. Now we irrigate so many times a month, and our crops grow much as the Irishman fatted his pigs to get a streak of fat and a streak of lean. This rule of thumb method is crude, but it is the best we have. When we get these data, then we can figure the rate of evaporation in a general way, and by this means the crops can be kept at top notch of growth during the entire season, and thus we can increase our output with the same labor from 25 to 100 per cent. and at the same time save our water so that it can be used elsewhere for more crops.

In the matter of sun temperatures a great deal of experimenting must be done to determine what fairly represents the conditions under which plants grow, for reflection and radiation from the ground is very important and varies with conditions. For example: Last summer during a long series of observations, I put three standard thermometers out at the same time: one in the shade, one in a hygrometer box which was laid on the asphalt pavement, and another by its side uninclosed. The first read 94°, the second 140°, and the third 120°. Thermometers hung against the side of a house will read higher than those close by, hanging freely. It may be said that the conditions are so varied that no definite results can be obtained, but plants are grown under these conditions, and the planter must know what are the effects of these conditions before he can control the growth and nourishment of the plants as it should be done. It may also be said that the present records amount to almost nothing in this regard and can never be of much service. Within our section the conditions of plant growth are very diverse. On the mountains they do not vary greatly from the East, but in the low and hot valleys it is far different, for example: In the Panamint Valley, where I was studying conditions, the gravelly soil became so hot in the sun during April that my feet began to burn while walking over it. The hob nails in my shoes dropped out, and left the leather looking as if it had been scorched, and yet plants grew in that gravel, some shrubs, but mostly some short-lived annuals. Under such conditions, when there is water for irrigation, six crops of alfalfa are raised a year, and other vegetation grows like weeds; but without water all is parched in a few days.

The botanist and student of plant life in general wants still more data, but if he could get even these, it would be a great step in advance.

When the Bureau made its present change into drainage areas from political divisions, it was an important improvement, there is, however, ground for further advance. In such a complex area as the Great Basin there are two very distinct regions which should be kept apart in making up all averages. All that area having an annual temperature of 58°, or higher, is as distinct from the rest as though it belonged to a separate planet. To average the records of these regions with the rest would vitiate both.

Note.—It is necessary for the Weather Bureau to have its instruments on the top of buildings as nearly all its stations are situated in the midst of large business centers in order to best subserve the interests there. The exposure of thermometers in a city will give higher mean temperatures than an exposure outside of a city.

A series of observations of sun temperatures would, no doubt, prove very valuable to the botanist, and could be accomplished by using a black bulb in vacuo properly standardized. But whether the work of obtaining the observations as required by the botanist could be carried on as economically by the Weather Bureau officials as by him is doubtful.

The question raised, when to irrigate, is a very important one, and when rightly understood would be the means of saving much money. This could be done by using some form of soil humidity apparatus.

The question of the effect of temperature, intensity of radiation, humidity, and other climatic factors on plant life is so involved with biological considerations that it appears to be more a study for the botanist and horticulturist than for students of the weather and climate.—*A. H. T.*

THE EFFECT OF EXPOSURE AND ALTITUDE ON THE DISTRIBUTION OF FOREST TYPES IN THE MANTI NATIONAL FOREST.

By LINCOLN CROWELL, Forest Assistant.

During the past season the writer has been at work on a timber estimate of the Manti National Forest and has had an excellent opportunity to note the effect of exposure and altitude upon the distribution of forest types.

Topographically speaking, the Manti National Forest is located on a deeply eroded plateau some 75 miles long, north and south, and from 5 to 35 miles wide, east and west. The altitude ranges from 5,000 feet at the base of the foot hills to about 11,000 feet for the tops of flat ridges and divides, although some points rise somewhat higher. The headwaters of the creeks that originate in the forest flow in an east or west direction, thus giving the sides of the canyons through which they flow northerly and southerly exposures.

Change in altitude corresponds to a certain change in latitude and as temperature and precipitation vary with a difference in latitude so do they vary with a difference in altitude. Personal observation leads me to believe that the higher parts of the forest receive a heavier precipitation than do the lower parts. With increase in altitude the daily and seasonal mean temperatures are lower.

The effect of this variation in precipitation and temperature is that tree growth at a lower elevation has a longer growing season but less moisture than does that at a higher elevation.

The different tree species found in the forest are grouped into more or less distinct belts or zones, depending upon their adaptability to withstand the lower temperatures of the higher altitudes, or the drought and high daily temperatures of the lower altitudes.

In the foothills up to 6,000 feet the cedar and pinyon are the principal trees met with; above these occur a belt of oak brush at 6,000 to 7,000 feet, then a broad belt 7,000 to 9,500 feet in which the quaking asp covers a large area, although mixed with it are coniferous trees such as blue spruce, Douglas fir, white fir, and yellow pine. At 9,500 to 10,800 feet occurs the Engelmann spruce zone. It is this zone that supports the heaviest stands of timber and from which the sawmills obtain most of their logs.

These zones are not, however, as distinctly marked as one might be led to suppose, nor are the species characteristic of one zone by any means lacking in the neighboring zone. The boundaries are very irregular and intermingled, and at the same elevation the types characteristic of two distinct zones are often present. This is brought about by difference in exposure. The southern and western exposures get more direct sunlight

TABLE 1.—*Climatological data for October, 1909. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Border	Uinta	6,085	7	41.8	.....	75	2	11	31	54	0.25	.....	0.13	.....	3	21	5	5	w.	S. W. Condron.
Evanston	do	6,860	13	44.2	+ 2.2	71	2	9	31	46	0.13	− 0.99	0.13	1.0	1	23	4	4	w.	Frank Tucker.
Idaho.																				
Geneva	Bear Lake	.....	2	.....	.....	.....	.....	.....	.....	.....	0.14	.....	0.11	0.0	2	24	7	0	.....	F. W. Boehme.
Grace	Bannock	5,400	3	48.0[b]	.....	76[b]	2	17[b]	31	44[b]	0.62[b]	.....	0.30[b]	.....	5[b]	19	9	3	s.	E. A. Ekern.
Oxford	do	4,750	2	.....	.....	.....	.....	.....	.....	.....	0.93	.....	0.40	0.5	4	24	5	2	.....	Edwin Smith.
Paris	Bear Lake	5,946	13	46.4	+ 2.2	78	1	12	30	47	0.33	− 0.59	0.22	1.0	3	28	0	3	w.	John Norton.
Stone	Oneida	4,520	2	45.4[c]	.....	87[c]	2	14[c]	30	53[c]	.....	.....	.....	1.0	.....	24	4	3	s.	Thos. W. Roe.
Weston	do	4,610	12	49.2	+ 2.5	80	2	13	31	49	0.77	− 0.56	0.28	0.0	4	22	3	6	s.	Wm. T. Chatterton.
Utah.																				
Annabella	Sevier	5,250	4	.....	.....	.....	.....	.....	.....	.....	0.14	.....	0.14	0.0	1	.....	.....	.....	.....	J. W. Fairbanks.
Beaver	Beaver	6,000	6	50.8	.....	75	28	19	31	38	0.20	.....	0.20	0.0	1	21	10	0	sw.	James Connell.
Black Rock	Millard	4,872	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. H. Cassell.
Blacksmiths Fork	Cache	5,500	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.
Card Canyon	do	5,000	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
Castle Rock	Summit	6,244	6	.....	.....	.....	.....	.....	.....	.....	0.55	.....	0.20	4.0	4	24	5	2	w.	David Moore.
Cedar City	Iron	5,750	4	.....	.....	75	15	19[e]	31	38	T.	.....	T.	0.0	0	16[e]	10[e]	0[e]	se.	J. M. Foster.
Corinne	Boxelder	4,240	39	53.2	.....	84	2	21	31	51	0.95	.....	0.90	0.5	2	13	8	10	n.	A. C. Murphy.
Coyoto	Garfield	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. E. Clayton.
Deseret	Millard	4,541	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. W. Western.
Enterprise (near)	Washington	4,270	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Day.
Farmington	Davis	4,267	9	50.8	.....	71	14†	27	31	38	1.18	.....	0.53	T.	6	19	11	1	nw.	Charles Boylin.
Fillmore	Millard	5,100	19	55.7	+ 3.2	86	27	23	31	55	0.51	− 0.46	0.43	0.0	3	.....	.....	.....	.....	J. J. Starley.
Frisco	Beaver	7,318	15	52.1	+ 2.7	79	15	21	31	35	0.00	− 0.72	0.00	0.0	0	.....	.....	.....	.....	E. R. Smyth.
Garland	Boxelder	4,350	....	52.2[a]	.....	76[a]	2	27[a]	9	41[a]	0.44[a]	.....	0.43[a]	0.0	3	15[a]	....	2[a]	s.	Harry B. Shaw.
Garrison[n]	Millard	.....	6	52.4[a]	.....	91[a]	5	20[a]	31	62[a]	T.	.....	T.	0.0	0	24[a]	4[a]	2[a]	s.	E. M. Smith.
Golden Reef	Beaver	7,000	.....	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0.0	0	.....	.....	.....	.....	D. W. Woodard.
Government Creek	Tooele	5,277	9	49.2	.....	73	15	19	8†	38	0.35	.....	0.20	2.0	2	24	4	3	s.	Walter James.
Heber	Wasatch	5,606	16	47.1[a]	+ 1.9	78[b]	2	18[b]	23†	56[b]	0.20[b]	− 1.07	0.10	1.5	4	20[b]	8[b]	1[b]	s.	John Crook.
Henefer	Summit	5,301	10	45.6	.....	81	2	7	31	59	0.77	.....	0.35	3.0	5	19	6	6	nw.	Wm. Brewer.
Hoyts Canyon	do	7,400	.....	.....	.....	.....	.....	.....	.....	.....	0.95	.....	.....	4.0	5	.....	.....	.....	.....	James Woolstenhulme.
Huntsville	Weber	5,100	14	.....	.....	.....	.....	.....	.....	.....	1.08	− 0.61	0.54	2.0	3	18	11	2	.....	Lars Petersen.
Ibapah (near)	Tooele	7,500	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. S. Gamwell.
Kanosh	Millard	5,250	1	.....	.....	.....	.....	.....	.....	.....	0.62	.....	0.57	0.0	2	.....	.....	.....	.....	Geo. Crane.
Kelton	Boxelder	4,230	31	49.0	.....	73	15	21	8	39	0.15	− 0.34	0.15	0.0	1	15	10	6	sw.	F. W. Klock.
Levan	Juab	5,010	19	49.7	+ 2.4	76	2	17	31	42	0.52	− 0.67	0.30	0.9	5	21	6	4	sw.	Wm. Brown.
Logan	Cache	4,507	18	51.0	+ 3.3	73	2	21	31	29	1.53	− 0.27	0.54	0.0	4	13[h]	3[h]	7[h]	n.[h]	State Agricultural College
Lucin	Boxelder	4,504	5	45.6	.....	78	5†	7	31	54	0.21	.....	0.21	T.	1	5	26	0	.....	C. J. Burke.
Lund	Iron	5,086	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. E. Smith.
Manti	Sanpete	5,575	15	43.9	− 4.4	65	1	16	31	35	0.68	− 0.16	0.20	0.0	5	20	0	11	.....	J. M. Anderson.
Marion	Summit	6,750	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Woolstenhulme.
Marysvale	Piute	6,180	10	49.4	.....	80	15	10	31	58	0.26	.....	0.24	T.	3	15	8	8	s.	John W. Henry.
Meadowville	Rich	6,200	10	45.7	.....	72	2	20	8†	42	0.62	.....	0.60	1.0	2	27	2	2	w.	J. S. Moffat.
Milford	Beaver	4,962	5	47.2	.....	76	2	22	22	48	0.00	.....	0.00	0.0	0	18	0	13	.....	C. M. Temple.
Millville	Cache	4,848	14	.....	.....	.....	.....	.....	.....	.....	0.89	− 0.69	0.38	0.0	5	.....	.....	.....	.....	Fred Yeates.
Minersville	Beaver	5,070	12	.....	.....	.....	.....	.....	.....	.....	0.02	.....	0.02	0.0	1	.....	.....	.....	.....	Geo. Roberts.
Modena	Iron	5,479	9	49.0	− 1.1	74	24	16	31	47	0.10	.....	0.10	0.0	2	15	12	4	w.	U. S. Weather Bureau.
Morgan	Morgan	5,080	6	46.8	.....	77	2	8	31	50	1.65	.....	0.70	3.0	4	15	12	4	nw.	W. Visick.
Moroni	Sanpete	5,519	1	.....	.....	.....	.....	.....	.....	.....	0.19	.....	0.15	0.2	3	2	28	1	sw.	B. F. Eliason.
Mount Nebo	Utah	4,650	8	51.6	.....	79	2	20	31	35	0.32	.....	0.16	0.0	3	22	7	2	n.	D. C. Walkey.
Mount Pleasant	Sanpete	5,859	17	49.3[b]	− 0.3	78[b]	15	14[b]	30	47[b]	0.58[d]	− 0.25	0.33[d]	T.	4	23[d]	1[d]	3[d]	.....	Jane Martin.
Nephi	Juab	6,059	6	.....	.....	.....	.....	.....	.....	.....	0.37	.....	0.19	T.	5	23	5	3	sw.	A. Madsen.
Nephi (near)	do	6,059	.....	.....	.....	.....	.....	.....	.....	.....	0.31	.....	0.21	T.	2	15	13	3	n.	S. R. Boswell.
Oak City	Millard	4,900	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jos. Finlinson.
Ogden (1)	Weber	4,310	8	51.8	+ 1.3	72	2	26	31	29	0.90	− 0.41	0.41	T.	4	24	5	2	nw.	Enoch Farr.
Ogden (2)	do	4,310	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. Chevers.
Panguitch	Garfield	6,560	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. C. Syrett.
Panguitch Lake	do	9,000	.....	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0.0	0	9	19	3	n.	James E. Prince.
Park City	Summit	7,300	12	49.2	+ 3.9	80	1	22	30	48	1.30	− 0.76	0.60	5.0	3	12	17	2	.....	Irvin Evans.
Parowan	Iron	5,970	18	51.4	+ 2.6	85	23	17	30	45	0.00	− 0.89	0.00	0.0	0	28	0	3	.....	Scott Matheson.
Payson	Utah	4,637	6	.....	.....	.....	.....	.....	.....	.....	0.82	.....	0.50	0.0	4	17	5	9	sw.	D. L. Coombs.
Pinto	Washington	5,907	12	48.8[b]	+ 4.1	74[b]	13†	12[b]	31	52[b]	0.00	− 1.46	0.00	0.0	0	16[f]	8[f]	0[f]	n.[f]	John H. Harrison.
Promontory	Boxelder	4,913	33	.....	.....	.....	.....	.....	.....	.....	0.32	− 0.25	0.30	3.0	2	.....	.....	.....	.....	F. C. Houghton.
Provo	Utah	4,532	17	50.6	+ 1.4	83	2	20	31	54	0.57	− 0.39	0.28	0.0	4	18	13	0	.....	James A. Oliver.
Randolph	Rich	6,442	6	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	T.	0	28	3	0	sw.	Wm. Rex.
Richfield	Sevier	5,350	19	50.6	+ 2.7	79	14†	15	31	53	0.60	.....	0.60	0.0	1	26	0	5	sw.	Joseph J. Jensen.
Richins Summit	Summit	6,500	.....	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.40	5.0	5	.....	.....	.....	.....	Ernest H. Brewer.
Saltair	Salt Lake	4,220	6	52.8	.....	70	2†	29	31	25	0.59	− 0.45	0.30	T.	5	.....	.....	.....	.....	E. J. Bench.
Salt Lake City	do	4,366	35	54.4	+ 2.2	78	2	28	31	30	1.13	− 0.27	0.50	T.	7	16	12	3	se.	U. S. Weather Bureau.
Setpio	Millard	5,260	14	47.9	+ 0.4	78	2	6	31	64	0.28	− 1.04	0.14	T.	3	20	6	5	sw.	Thos. Memmott.
Silver Lake	Salt Lake	.....	1	46.8	.....	70	16	9	31	36	2.17	.....	0.90	17.0	6	17	8	6	sw.	N. S. Fetherolf.
Soldier Summit	Utah	7,474	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent, D. & R. G. Ry.
Spanish Fork Canyon	do	.....	.....	54.1[a]	.....	80[a]	2	24[a]	31	36[a]	0.92	.....	0.67	0.0	4	27	1	3	.....	U. S. Reclamation Service
Thistle	do	5,075	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent, D. & R. G. Ry.
Tooele	Tooele	4,900	13	52.0	+ 1.5	76	2†	26	31	41	0.44	− 0.91	0.17	2.0	6	16	10	5	ne.	E. A. Bonelli.
Utah Lake Pump'g Sta.	do	4,500	4	50.2[b]	.....	74[l]	13	21	31	41[l]	0.47	.....	0.10	0.1	5	21	8	2	.....	W. A. Knight.
West Canyon	Tooele	7,800	....	.....	.....	.....	.....	.....	.....	.....	0.53	.....	0.30	3.0	2	.....	.....	.....	.....	Walter James.
Oregon.																				
Ana River	Lake	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Curtis Duvall.
Burns	Harney	4,157	19	44.8	− 1.1	71	23	19	8†	41	1.01	+ 0.47	0.68	3.0	4	20	3	8	.....	J. C. Welcome, jr.
Burns Mill	do	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John P. Sayer.
Cecils Ranch	do	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. D. Cecil.
Christmas Lake	Lake	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John C. Green.
Paisley	do	4,500	5	50.7[l]	.....	74[b]	11	31[l]	30	35[l]	0.98	.....	0.42	.....	8	21	2	8	sw.	E. C. Woodward.
"P" Ranch	Harney	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. M. Byrd.
Silver Lake	Lake	4,700	14	51.0	− 6.2	80	11	19	23	55	0.65	− 0.33	0.20	0.0	6	15	4	12	s.	E. K. Henderson.
California.																				
Truckee	Nevada	5,819	38	32.6	−12.5	50	16	20	19	20	0.25	− 0.78	0.10	2.0	....	20	5	6	s.	Agent, So. Pac. Co.
Nevada.																				
Austin	Lander	6,594	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. F. Wiseman.
Battle Mountain	do	4,843	39	50.0	+ 0.4	81	21	14	31	62	0.20	− 0.24	0.20	0.0	1	19	5	7	w.	Agent, So. Pac. Co.
Beowawe	Eureka	4,905	39	49.4	+ 0.5	75	16	18	31	44	0.60	+ 0.17	0.30	0.0	2	23	5	4	nw.	Do.
Carlin	Elko	5,232	39	48.8[l]	+ 4.0	88[k]	16	11[k]	26	69	0.07	− 0.18	0.04	0.7	2	22	0	9	.....	Do.
Carson Dam	Churchill	4,032	3	53.9	.....	79	13	27	30	42	0.73	.....	0.56	0.0	2	17	7	7	w.	U. S. Reclamation Service
Cherry Creek	White Pine	6,450	1	48.8	.....	74	27	17	31	47	0.79	.....	0.48	1.9	5	15	13	3	w.	J. H. Leishman.
Clover Valley	Elko	6,000	10	49.7	.....	79	15	18	31	53	0.25	.....	0.14	0.0	3	17	9	5	.....	J. F. Wiseman.
Cobre	do	.....	.....	42.2	.....	72	20	7	23	57	0.18	.....	0.16	1.0	3	23	5	3	s.	Agent, So. Pac. Co.

TABLE 1.—*Climatological data for October, 1909. District No. 10*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Nevada—Cont'd.																				
Columbia	Esmeraldo	5,750	3	52.3	.....	78	26	26	30†	43	0.77	.....	0.39	0.0	3	16	10	5	se.	A. Booth.
Dutton	Elko	5,100	2	47.6	.....	80[a]	16	15	27	61	.....	.....	.....	2.0	....	23	3	5	.....	Golconda Cattle Co.
Elko	.....do	5,342	39	47.1	+ 3.5	82	17	10	25	62	1.02	+ 0.55	0.85	T.	2	13	11	7	e.	Agent, So. Pac. Co.
Ely	White Pine	6,421	19	49.0	+ 5.6	75	27	24	8†	48	0.20	− 0.58	0.20	T.	1	30	1	0	nw.	G. C. Hunting.
Eureka	Eureka	6,500	7	48.3	.....	75	14†	22	29†	41	1.29	.....	0.40	1.0	6	19	3	9	s.	Clay Simms.
Fallon	Churchill	3,965	5	51.6	.....	80	13	24	30	48	0.70	.....	0.47	0.0	5	25	3	3	w.	U. S. Reclamation Service
Fernley	Lyon	4,200	2	53.0	.....	81	16	30	8†	47	1.16	.....	0.62	0.0	3	17	7	7	w.	Do
Gardnerville	Douglas	4,830	10	49.6	.....	77	13	19	24	53	0.07	.....	0.05	0.5	3	10	11	10	s.	William Dangberg.
Geyser	Lincoln		5																	Mrs. J. F. Wambolt.
Golconda	Humboldt	4,697	31	52.6	+ 2.0	80	12	25	7	45	1.10	+ 0.74	0.85	0.0	3	12	14	5	nw.	Agent, So. Pac. Co.
Halleck	Elko	5,631	17	.....	.....	.....	.....	.....	.....	.....	0.10	− 0.37	0.10	0.0	1	9	12	10	nw.	Do.
Hamilton	White Pine	7,977	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	George Allen.
Humboldt	Humboldt	4,236	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent, So. Pac. Co.
Jean	Clark	2,074	2	60.4[a]	.....	87[a]	25	32[a]	31	48[a]	0.00[a]	.....	0.00[a]	0.0	0[a]	27	2	2	sw.	Agent, Salt Lake Route.
Leetville	Churchill	4,020	3	53.4[a]	.....	80[a]	13	26[a]	30	48[a]	0.60[a]	.....	0.55[a]	0.0	2[a]	21	6	4	w.	U. S. Reclamation Service
Lewers Ranch	Washoe	5,500	22	51.2	0.0	79	25	29	29†	45	1.99	+ 0.42	0.67	1.0	5	10	15	6	.....	Ross Lewers.
Lovelock	Humboldt	3,977	17	53.6	+ 1.6	89	2†	24	29	55	0.11	− 0.12	0.04	0.0	5	.....	.....	.....	.....	John S. Case.
McAfees Ranch	Esmeraldo	4,835	6	50.7[c]	.....	87[d]	6	16[b]	25	60[d]	0.00	.....	0.00	0.0	0	18	1	12	n.	G. A. McAffee.
Millett	Nye	.....	2	47.8	.....	77	14	15	25†	59	0.40	.....	0.28	0.0	3	21	3	7	s.	Fred J. Jones.
Mina	Esmeraldo	4,600	3	52.6	.....	80	12†	24	29	53	1.22	.....	0.75	0.0	3	15	9	7	sw.	Agent, So. Pac. Co.
Palmetto	.....do	6,780	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Isaac McConnell.
Potts	Nye	6,990	17	43.6	− 1.0	68	25	15	31	47	0.30	0.00	0.15	0.0	3	9	8	14	n.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	8	49.0	.....	82	15	18	25	55	1.39	.....	0.90	0.0	6	15	7	9	sw.	F. M. Payne.
Reno	Washoe	4,532	39	51.6	+ 1.9	79	14	28	29	45	0.46	+ 0.05	0.24	T.	5	19	9	3	w.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Reclamation Service
Tecoma	Elko	4,813	32	47.4	+ 1.6	80	14†	17	22†	57	0.03	− 0.38	0.03	0.0	1	....	.....	.....	.....	Agent, So. Pac. Co.
Tonopah	Nye	6,090	3	53.1	.....	73	14	26	30	29	0.26	.....	0.20	0.0	3	20	9	2	se.	U. S. Weather Bureau.
Wabuska	Lyon	4,347	7	49.4	.....	76	13†	17	29	53	0.80	.....	0.50	0.0	2	17	18	5	ne.	J. G. Young.
Wells	Elko	5,631	38	46.2	+ 0.4	76	24	16	26	53	0.10	− 0.53	0.03	0.0	4	16	3	12	.....	Agent, So. Pac. Co.
Winnemucca	Humboldt	4,432	31	50.0	+ 1.4	78	15	24	26	52	1.28	+ 0.76	0.63	0.2	8	16	7	8	ne.	U. S. Weather Bureau.

* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of fall not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.
[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

TABLE 2.—*Daily precipitation for October, 1909. District No. 10, Great Basin.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Border	Bear	.08			.04	.13		T.													T.									T.		0.25
Evanston	do			T.	T.			T.																						.13		0.13
Idaho.																																	
Geneva	Bear			.03	.11																											0.14
Grace	do			.07	.07	.09		T.																					.09	.30		0.62
Oxford	do			.18	.40																								.25	.10		0.93
Paris	do	.22	.04																											.07		0.33
Stone	Deep Creek			.13			.05																									0.18
Weston	Bear				.19	.15																							.15	.28		0.77
Utah.																																	
Annabella	Sevier								.14																							0.14
Beaver	do			T.				.20																						T.		0.20
Black Rock	do																															
Blacksmiths Fork	Bear																															
Card Canyon	do																															
Castle Rock	Weber			.20	.05		.10																							.20		0.55
Cedar City	Desert							T.																								T.
Corinne	Bear																													.90	.05		0.95
Coyoto	Sevier																															
Deseret	do																															
Enterprise (near)	Desert																															
Farmington	Great Salt Lake		.10		.13	.10	.53	.10																						T.	.22		1.18
Fillmore	Sevier			.04				.43																							.04		0.51
Frisco	Desert																																0.00
Garland	Bear																																
Garrison	Desert		T.																														T.
Golden Reef	do																																0.00
Government Creek	do							.15																						.20		0.35
Heber	Jordan				.10																									*	*	.10	0.20
Henefer	Weber		T.	.03	.15	.16		.08												T.										T.	.35		0.77
Hoyts Canyon	do																																0.95
Huntsville	do		T.	.10	.54			T.																							.44		1.08
Ibapah (near)	Desert																																
Kanosh	Sevier						.57																								.05		0.62
Kelton	Great Salt Lake			.15																										T.	T.		0.15
Levan	Sevier	.01		.05	.07			.30																							.09		0.52
Logan	Bear			.20	.49																									.30	.54		1.53
Lucin	Desert			T.	.21																										T.		0.21
Lund	do																																
Manti	Sevier		.13	.10	.12	.13		.20																							T.		0.68
Marion	Weber		T.	T.		.10		.30												T.											.35		0.75
Marysvale	Sevier		T.	.01				.24																							.01		0.26
Meadowville	Bear						.60																								.02		0.62
Milford	Sevier																																
Millville	Bear			.03	.16			.06																							.26	.38	0.89
Minersville	Sevier																																0.02
Modena	Desert		.06	.04				T.																									0.10
Morgan	Weber		T.		.50	.27		.18																						T.	.70		1.65
Moroni	Sevier			T.	.03		T.	.15									T.														.01		0.19
Mount Nebo	Jordan			T.	T.	.16		.14																								.02	0.32
Mount Pleasant	Sevier		.03	.10	.12			.33																						T.			0.58
Nephi	Jordan			.02	.03	.07		.19																							.06		0.37
Nephi (near)	do				.10			.21																							T.		0.31
Oak City	Sevier																																
Ogden (1)	Weber			.05	.33	.12																									.41		0.90
Ogden (2)	do																																
Panguitch	Sevier																																
Panguitch Lake	do			T.					T.																								T.
Park City	Weber			.60	.20																										.50		1.30
Parowan	Desert																																0.00
Payson	Jordan		T.	.10	T.	.10		.50																							.12		0.82
Pinto	Desert																																0.00
Promontory	Great Salt Lake		.02																												.30		0.32
Provo	Jordan		.02	T.	.15	.12	.28																										0.57
Randolph	Bear																																
Richfield	Sevier							.60																									0.60
Richins Summit	Weber		T.	T.	T.	.35		.10														T.								T.	.40		0.85
Saltair	Great Salt Lake				.10	.09		.30																						.01	.09		0.59
Salt Lake City	Jordan		.01	.11	.16		.04	.46																						.13	.23		1.13
Scipio	Sevier			T.	.14	.02	.12																								T.		0.28
Silver Lake	Jordan			.10	.22	.15		.71																						.09	.90		2.17
Spanish Fork Canyon	do		T.	T.	.08	.08		.67																							.09		0.92
Thistle	do																																
Tooele	Great Salt Lake		T.	.03	.03	.04	.10	T.																						.07	.17		0.44
Utah Lake Pump'g Sta.	Jordan			.06	.09	.13		.09																							.10		0.47
West Canyon	Desert							.23																							.30		0.53
Oregon.																																	
Ana River	Interior Drainage	.10	.10																		.08	.11							.02	T.		.06	0.47
Burns	do	.08	.13																	.12												.68	1.01
Burns Mill	do	.27		.02			.05													.13						.05					.32	.55	1.39
Cecils Ranch	do																																
Christmas Lake	do																																
Paisley	do		.42	.10		.05														.06	.06	.22							.02			.05	0.98
"P" Ranch	do		.30	.09	.50		.02													.05									.09	.01	.23	.24	1.53
Silver Lake	do	T.	T.	.20																.15	T.	.10						.10	.05	.05			0.65
California.																																	
Boca	Truckee																												T.		.20		0.20
Bodie	East Walker																																
Bridgeport	do																																
Donner Ice Camp	Truckee																																
Fales Hot Springs	West Walker		.15	.51	1.00	.10																							.14	.20			2.10
Hobart Mills	Truckee	.12	.22	.06	.05														*	.56	.05	.07							.56	.34			2.03
Lundy	East Walker																																
Markleeville	Carson		.40	.50	.30																								.40	.10			1.70
Shields Ranch	West Walker																																
Silver Creek	Carson		.45	.59	.31																								.50	.20			2.05
Tahoe	Truckee	.45		*	1.39														*	.82						.69							3.35
Truckee	do																																0.25
Nevada.																																	
Austin	Reese																																
Battle Mountain	Humboldt		T.	T.	.20		T.																										0.20
Beowawe	do		.30		.30																												0.60
Buckskin	Walker	.65	.35	.10	T.																												1.10
Carlin	Humboldt																													.03	.04		0.07

TABLE 2.—*Daily precipitation for October, 1909. District No. 10*—Continued.

Stations.	River basins.	Day of month.																														Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Nevada—Cont'd.																																
Carson Dam	Carson	T.	.56		.17		T.																									0.73
Cherry Creek	Humboldt		.08	.48			T.	.10																						.09	.04	0.79
Clover Valley	do			.14		T.	.05																							.06		0.25
Cobre	do			.16																									.01	.01		0.18
Columbia	Desert		.32	.06	.39																											0.77
Dutton	Humboldt																															
Elko	do			.85			.17																						T.			1.02
Ely	do			.20			T.																							T.	T.	0.20
Eureka	do		.21	.34	.40		.09																						.15		.10	1.29
Fallon	Carson	.47		.05	.08	.04	.06																									0.70
Fernley	Truckee		.62	.42	.12																											1.16
Gardnerville	Carson		T.	.01	.01		T.																								.05	0.07
Geyser	Humboldt																															
Glenbrook	Truckee			*	1.00															.10										.20		1.30
Golconda	Humboldt	.05		.85		.20																										1.10
Halleck	do									.10																						0.10
Hamilton	do																															
Humboldt	do																															
Jean	Desert																															0.00
Leetville	Carson	.55				.05																										0.60
Lewer's Ranch	Truckee		.35	.40	.22															.67									*	.35		1.99
Lovelock	Humboldt	.04	.02	.03	.01		.01																									0.11
McAfee's Ranch	Desert																															0.00
Millett	Reese		.28	.04	.08																											0.40
Mina	Desert	.75	.21		.26																											1.22
Mount Rose Ranch	Truckee	*	1.80	1.40	.10														T.	.30									.10	.10		T.	3.80
Palmetto	Desert																															
Paradise Valley	Little Humboldt		.75	1.10		.30																									.02	.02	2.19
Potts	Reese		.15	.10	.05																									.T.			0.30
Quinn River Ranch	Humboldt	.05	.20	.03	.90		.09																						T.		T.	.12	1.39
Reno	Truckee	.14	.05	.24	.02		.01													T.									T.	T.			0.46
Smith	West Walker		.07	.50	.42	.06																											1.05
Soda Lake	Carson																															
Sweetwater	East Walker		.85	.15																													1.00
Tecoma	Humboldt					.03																											0.03
Tonopah	Desert	T.	.18	.02	.06																												0.26
Wabuska	Walker	T.	.50	.30	T.																												0.80
Wells	Humboldt			.02																									.03	.03	.02		0.10
Willow Point	Little Humboldt	.10		.09			.11																								T.	T.	0.30
Winnemucca	Humboldt	.03	.37	.51	.12		.20													T.										.01	.01	.03	1.28
Yerington	Walker																																

TABLE 3.—*Maximum and minimum temperatures at selected stations, October, 1909. District No. 10, Great Basin.*

Date.	Wyoming.						Utah.																				Burns, Oreg.		Elko, Nev.	
	Border.		Evanston.		Weston, Idaho.		Corinne.		Deseret.		Government Creek.		Marysvale.		Modena.		Ogden (1).		Parowan.		Provo.		Salt Lake City.								
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
1	66	25	66	27	65	32	80	44	.....	.....	67	32	77	35	68	39	65	42	78	41	70	39	70	46	49	44	60	33		
2	75	36	71	36	80	39	84	40	.....	.....	72	45	76	48	64	39	72	50	71	42	83	40	78	53	48	38	72	35		
2	71	34	65	35	75	39	76	37	.....	.....	63	36	74	40	58	38	69	46	70	43	78	39	71	48	52	34	62	28		
4	63	36	62	40	69	38	74	35	.....	.....	64	44	70	29	60	31	69	45	68	40	73	39	67	46	49	34	61	31		
5	62	29	60	40	69	35	72	31	.....	.....	65	33	68	25	62	30	61	41	69	35	67	33	62	43	54	38	63	30		
6	62	21	60	29	68	32	80	36	.....	.....	64	31	67	30	64	32	62	44	70	33	70	35	64	46	56	32	60	30		
7	53	25	50	35	54	37	60	42	.....	.....	52	37	56	39	61	40	53	43	71	30	56	36	52	41	62	28	55	38		
8	47	12	47	14	56	23	67	35	.....	.....	50	19	54	29	55	28	50	29	67	29	55	24	50	34	60	19	62	33		
9	57	18	57	21	61	25	63	36	.....	.....	55	25	61	25	64	26	56	34	66	28	62	25	57	36	54	24	68	24		
10	63	23	65	26	71	30	69	40	.....	.....	65	32	69	27	70	31	62	39	67	26	70	26	65	40	58	30	72	26		
11	63	23	66	28	70	31	75	28	.....	.....	69	34	74	25	72	33	65	41	69	27	75	29	68	45	70	33	75	28		
12	67	22	67	30	74	32	73	31	.....	.....	71	39	75	32	73	41	67	45	65	29	77	33	70	46	71	36	75	29		
13	65	22	56	35	75	54	76	27	.....	.....	72	40	76	29	74	38	69	45	60	30	77	31	73	48	67	35	75	29		
14	67	27	68	36	78	54	69	30	.....	.....	72	39	75	30	74	37	70	45	78	31	78	31	73	50	69	30	78	31		
15	68	21	69	29	77	31	79	37	.....	.....	73	38	80	28	74	34	69	40	76	32	80	29	74	45	68	34	75	29		
16	64	23	70	30	74	32	74	36	.....	.....	71	37	77	30	69	33	69	47	75	31	81	33	71	49	70	29	76	27		
17	67	20	65	24	68	30	72	38	.....	.....	65	33	72	28	68	36	64	42	73	32	71	33	65	46	65	32	82	29		
18	68	18	67	25	71	27	78	32	.....	.....	70	33	76	22	68	32	66	41	72	33	79	28	72	42	54	38	77	23		
19	65	26	62	29	71	35	70	36	.....	.....	70	42	76	34	67	34	69	41	73	35	73	33	70	50	48	36	71	32		
20	51	32	54	30	60	38	72	37	.....	.....	62	29	66	33	66	34	67	39	74	34	66	33	61	44	54	29	66	24		
21	60	19	58	28	66	26	69	34	.....	.....	67	37	70	29	63	33	62	41	87	50	68	29	64	45	58	24	64	28		
22	60	16	60	18	63	22	63	40	.....	.....	64	27	69	22	67	30	59	35	65	35	68	26	62	40	64	28	69	19		
23	67	13	68	20	69	21	70	37	.....	.....	67	29	72	21	68	25	64	36	85	53	71	23	68	39	71	32	71	27		
24	60	19	62	35	67	31	79	33	.....	.....	66	37	75	21	74	29	63	38	75	40	70	27	64	44	68	30	73	22		
25	60	19	58	20	65	24	74	30	.....	.....	67	32	75	21	72	26	64	40	74	30	72	23	67	38	70	23	72	10		
26	61	15	61	28	71	29	73	27	.....	.....	68	33	73	19	73	26	65	39	70	30	74	24	68	44	68	28	68	19		
27	65	14	63	24	72	23	77	28	.....	.....	71	36	76	18	72	26	69	42	70	25	78	24	72	42	64	24	72	11		
28	69	15	64	24	71	34	74	36	.....	.....	64	44	72	33	66	32	71	44	65	23	75	24	72	55	46	19	68	14		
29	65	13	54	36	65	32	70	37	.....	.....	62	36	67	43	58	32	64	38	59	20	65	33	63	38	47	29	66	25		
30	53	14	45	22	35	26	68	27	.....	.....	37	26	51	31	47	28	44	31	55	17	78	28	46	32	48	26	59	21		
31	45	11	40	9	40	13	62	21	.....	.....	49	19	56	10	56	16	43	26	57	23	51	20	50	28	46	36	58	12		
Mns	62.2	21.3	60.6	27.8	66.8	31.5	73.3	34.2	.....	.....	64.3	34.0	70.2	28.6	66.0	31.9	63.3	40.3	70.1	32.8	71.3	30.0	65.5	43.3	59.0	30.7	68.5	25.7		

Date.	Nevada.																													
	Ely.		Eureka.		Fallon.		Jean.		Lovelock.		Millett.		Mina.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.							
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.						
1	68	43	66	40	61	44	82	48	80	41	67	41	64	42	58	40	60	47	68	36	61	48	63	42						
2	66	36	61	39	60	46	75	50	89	34	59	42	61	35	55	43	53	43	62	28	51	37	60	44						
3	56	40	50	31	56	44	65	42	88	39	53	35	59	35	68	33	48	39	62	26	47	37	62	38						
4	57	28	41	30	56	44	72	43	85	35	53	33	61	39	60	40	57	39	66	22	49	35	56	39						
5	56	30	52	35	62	34	70	43	80	37	60	36	62	34	66	30	62	37	62	22	51	37	64	33						
6	60	30	50	30	60	39	75	42	65	35	56	30	64	38	56	44	63	42	53	22	53	38	55	40						
7	57	35	53	34	60	34	76	45	70	30	64	35	65	33	55	36	62	39	62	26	56	40	54	33						
8	53	24	57	23	61	31	78	46	80	32	59	26	76	35	60	22	63	33	66	28	56	34	59	28						
9	62	28	64	28	67	31	76	42	74	35	67	27	78	34	71	27	68	33	68	28	63	39	69	30						
10	70	31	72	34	72	33	78	43	76	31	70	29	78	40	77	29	73	35	66	26	69	45	75	34						
11	71	36	73	38	72	39	84	44	79	37	70	32	75	48	78	38	70	39	78	26	72	57	77	36						
12	69	35	72	41	79	50	85	42	80	35	72	42	80	35	79	31	76	45	78	36	67	55	77	36						
13	66	38	72	38	80	38	80	45	89	37	76	30	79	36	78	29	79	38	78	38	71	53	78	35						
14	63	34	75	39	79	37	85	42	86	37	77	29	80	38	81	33	79	40	80	36	73	55	78	34						
15	66	40	75	39	78	37	85	42	82	38	75	30	78	36	82	31	77	39	78	32	70	55	78	35						
16	70	42	74	38	78	37	85	45	87	35	73	30	80	38	75	29	75	41	80	30	69	50	77	32						
17	67	34	70	35	75	40	80	47	82	34	73	29	78	44	76	26	74	36	80	26	67	52	75	31						
18	71	32	69	43	76	40	82	45	78	33	70	30	73	38	72	29	70	38	78	28	67	51	74	35						
19	64	40	64	35	68	37	77	50	66	32	71	36	72	27	66	42	57	45	76	26	64	45	61	37						
20	65	30	62	28	69	29	.....	.....	60	33	69	27	70	33	64	35	66	38	78	21	63	42	63	32						
21	65	37	66	37	67	31	77	41	63	32	67	40	74	26	63	32	61	38	76	26	63	44	63	32						
22	66	24	67	28	67	28	78	46	74	30	66	20	76	37	69	22	70	31	72	17	65	45	68	29						
23	74	26	71	37	74	27	86	38	79	30	76	17	77	36	72	21	75	32	70	17	70	51	77	28						
24	70	28	71	35	72	30	85	37	82	32	73	17	79	26	73	20	76	31	68	19	70	52	74	29						
25	65	27	72	32	74	29	87	39	74	28	71	15	74	34	73	18	77	32	70	20	70	54	76	25						
26	68	29	73	32	75	27	83	36	65	28	72	15	75	39	74	21	77	32	68	20	72	55	76	24						
27	75	35	71	35	74	30	83	38	64	29	74	19	60	28	70	20	77	32	70	19	68	50	75	24						
28	72	36	67	45	68	43	81	40	64	27	67	39	56	25	63	40	58	38	71	19	62	33	65	36						
29	68	30	56	22	57	26	75	37	56	24	58	22	63	24	53	31	49	28	62	22	48	30	51	28						
30	61	26	40	22	52	24	71	33	57	26	47	30	69	29	51	28	47	30	58	17	39	26	48	26						
31	62	30	55	22	62	27	69	32	55	25	58	15	72	26	52	30	59	31	60	17	51	30	55	29						
Means	65.3	32.7	63.9	33.7	68.1	35.0	78.8[a]	42.1[a]	74.5	32.6	66.5	29.1	71.2	34.1	67.4	30.6	66.4	36.8	69.7	25.0	61.8	44.4	67.2	32.7						